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# SENSING SMOG ON SOCIAL MEDIA: RETHINKING TRACING AS TRACKING OF ORIGINARY HUMANICITY

by: Xin Liu , May 15, 2019

How can smog be sensed and made sense of on social media? How might polluted air, typically conceived of as material and located in the environment, be traced or leave a trace on social media that is textual, virtual and *digital*? This article concerns the im/possibility of the simultaneous and irreducible necessity and impossibility of tracing smog and rethinks the notion of tracing as a feminist new materialist method and methodology. In recent years, feminist researchers have turned to the more-than-human relationalities which further challenge the strict separation between and the hierarchical positioning of research subjects and objects. Put in general terms, these studies seek to investigate "the site-specific co-occurrence of reality's terms with social meanings with biophysical processes, political economy with natural forces, artistic practice with technological and cosmic speeds beyond the human grasp" (Tianen, Kontturi & Hongisto 2015: 15). Some of the most widely adopted concepts/methods are "intra-action" (Barad 2007), "the apparatus of bodily production" (Haraway 1988), and "cartographical method" (Braidotti 2006). Although drawing on various strands of thought, these concepts all seek to record and refigure the separation between materiality and signification and move beyond the predominant linguistic mediation paradigm of poststructuralist, postmodernist and deconstructive theory.

Importantly, these methods have assisted the challenge against an essentialist conception of matter, understood as the overdetermined and passive ground upon which language mediates, or as the radical outside of representation and signification. And yet, these lines of enquiry have also been criticised from the following two aspects. First, one of the recurring critiques of new materialism is that the preoccupation with connectivities and the agential capacity of *matter* flattens out differences and elides important questions about relations of power. As Yasmin Gunaratnam and Carrie Hamilton write, "The reference to a 'not only who' is a much-needed critique of anthropocentrism. At the same time, the 'what' in all of

fabulous relationality can sidestep the politics and content of knowledge production evoked by the *who*: how the *what* arrives and is welcomed, what is turned from the turning to, and at what cost (2017: 5; emphasis in the original).

Second, and from a different perspective, the attribution of literacy to the more-than-human others and the inclusion of materiality in feminist research are said to recuperate, rather than dismantle, anthropomorphism. Nikki Sullivan's following observation is a good example of this strand of critique. As it is also relevant to my later discussion on the spatiality and temporality of tracing as a method and methodology, I will cite it at length. Sullivan writes,

I am perturbed by the idea that we might see from the perspective of the Other, or, from something other than a sociocultural perspective (whatever that might mean). If *social conventions [are] anchored in sensibilities* (Boddy 1998: 105), and therefore each of us is *in* a perspective, rather than simply *having* one (Alaimo 2005: 117) then it is not possible to simply abandon, throw 'b, or replace one's perspective of the Other with another's [sic], at will. To presume that we can, or that we should see from the perspective of the Other is no less imperialist, I would argue, than assuming what Donna Haraway refers to in *Situated Knowledges* as *the god trick* seeing everything from the nowhere (1988: 581). (2012: 306; emphasis in the original)

Central to Sullivan's disclaimer about new materialist theoretical and methodological orientation towards matter, understood as agential, is the idea that intelligibility is entirely confined to the realm of the cultural, which characterises the *site* of the human condition. Such absolute confinement means, according to Sullivan, that the description of the agency of intentionality, calculation, sociality of the more-than-human others is not only anthropomorphic, but also universalising and colonising. That is, the inclusion of the more-than-human others into the *parliament* (Lato 1993) of decision makers in fact reduces their alterity to the parameters of humanness, coded as white and masculine. The recuperation of whiteness in feminist posthumanist and new materialist approaches is also noted by Gunaratnam and Hamilton. Interestingly, for Gunaratnam and Hamilton, feminist new materialist

theorisations abandon the political and social questions concerning the who for the what. For Sullivan, the opposite is the case. That is, what is put under erasure by ventriloquism and anthropomorphism of the Anthropos.

In essence, then, both strands of critique concede to the separation between the who and the what, and relatedly, between the cultural and the natural, the textual and the material. The received possibility or impossibility of such a separation has been one of the predominant concerns in recent feminist theorisations. This is not only because it has significant political and ethical implications as the above discussion of the two strands of critique of feminist posthumanist and new materialist theorisations show, but it also asks for reconsideration of feminist research methods and methodologies. For example, what methods enable examinations of the affective and the corporeal that are conceived of as before and beyond textual and visual representations? How to research the liveliness and contingency, multiplicity and relationality of the social and material world, without losing sight of the socio-economic inequalities and various modalities of social exclusion? And further, how are feminist methods and methodologies emergent in and transformed by the specific arrangements of research practices that utilise apparatuses such as algorithms

[1].

, screens (Simone 2012), tape recorders (Back 2012), and photo-images (Bell 2012)?

This article is positioned within these feminist theorisations of the turn to matter and its implications for feminist research methods and methodologies. It suggests that it is precisely by thinking through the methodological question of the who and the what that the sometimes heated and polemical debates about the apolitical tendencies in feminist new materialist researches can be more productively engaged with. The article uses the example of tracing smog on Chinese social media to reroute the problematic of the who and the what. It proceeds as follows. First, I provide a brief account of the ways in which discussions of smog on Chinese social media have played an important role in shaping environmental governance in China. I also engage with recent studies that utilise social media data to measure air.

Second, I take up Sylvia Wynter's (2001) conception of the sociogenic principle, Jacques Derrida's (1972) theorisation of trace and Vicki Kirby's (2011) concept of originary humanicity, and suggest tracing as a method and methodology that radically reconfigures the spatiotemporal aspects of research practices. More specifically, I argue that the method of tracing contributes to the following aspects of feminist new materialist practices: (1) attending to non-linearity and emergence without losing sight of the specific socio-political context; (2) underscoring dynamic relationality as well as addressing concerns that matter; (3) challenging anthropocentrism without assuming the prior separation between the human and the more-than-human.

Smog: p (wu) ... (mai)

The word p ..., although first used in a weather forecast in 2004 by CCTV (China Central Television), did not become a buzzword on Chinese social media until December 2011. An online poll led by the well-known property developer Pan Shi played out on Sina Weibo, which is one of the most popular Chinese social media platforms. Pan asked his millions of followers to vote for more accurate measurements of the air quality in Beijing. This was a response to the damning contrast between the air quality measurement released by the U.S. embassy in Beijing and the Chinese official statistics. Whereas the Beijing government claimed that there were over 280 blue-sky days in Beijing on which air quality scored below 100, the data collected by the air monitor installed on the rooftop of the U.S. Embassy in Beijing suggested a higher level of pollution. The gap between the choking grey haze and the claimed blue sky, and between the report by the U.S. embassy and Chinese official statistics, angered citizens, who began to express their dismay at the problem of urban air pollution on Chinese social media.

Although discussions of air pollution continue to be a sensitive topic in China [2].

, online campaigns against air pollution are telling of the increased public participation in environmental governance (Boyd 2013). Social media platforms such as Sina Weibo play an important role in this development. As Deluca et al. (2016) point out, Chinese social media platforms have replaced state-sanctioned newspapers. They enable fast information sharing and collective engagement in protestations by virtue of the sense of community they provide (see for example Chen et al. 2016; Deluca et al. 2016). In fact, rather than simply censoring information, the government turns to social media to see what topics are trending. Environmental issues are prominent (Deluca et al. 2016: 334).

For researchers, the data from social media has also provided new means to investigate the phenomenon of smog. For example, in comparing particulate matter measurements from four major Chinese cities and 112 million Sina Weibo posts from corresponding days in 2011-2013, Tao et al. (2016) suggest that there is a strong correlation between public perceptions of air quality in China and the changing air quality scores (see also Wang et al. 2015; Wang et al. 2017). In view of this, social media is conceived of as a "sensor" (Wang 2015) that provides alternative measurements of air pollution, particularly when traditional measurement stations are unavailable, censored or misreported (Tao et al. 2016: 1). The usage of big data and quantitative methods in these studies are interesting and important, especially in the Chinese context where issues such as a lack of data transparency and censorship are still predominant.

And yet, the how of these correlations remain unclear. How, for example, do the numerical measurements of the concentration of particulate matter correlate with the embodied experiences of air pollution mediated by spiritual, digital and socio-political conditions? In the aforementioned study conducted by Tao et al., for example, the correlation between the public perception of air pollution and the scores of air quality is based on the frequency of meaningful words that consist of two consecutive Chinese characters

[3].

in a sentence and the changing air quality readings from the U.S. consulates in major cities in China. Such a form of data collection and sampling relies upon a series of omissions that include, for example, words that contain more or less than 2 consecutive words, internet neologisms that cannot be recognized by the algorithm of official Chinese air quality statistics, as well as air quality measured by smart sensors installed in households or by wearable gadgets. Moreover, identical posts (posts that are retweeted) are considered as 'noise' (Tao et al. 2016: 3), because they do not express 'authentic' individual opinions, and are deleted using the MD5 message digest algorithm

[4].

Other forms of posts that are not simply composed of characters, such as phonograms, images or videos are not sampled. As Deluca et al. note,

In the face of Chinese censorship technology (largely produced by Western companies for surveillance purposes), Weibo's format necessitates a form of creativity that relies heavily on two tactics: the use of images and phonograms. Censors can scan posts for certain words and automatically delete them, but scanning images is difficult. Phonograms in highly intertextual online conversations also function as a method of circumventing censors. Again, this tactic is peculiar to Chinese because it plays to the language's dependence on tonality and context for meaning. (2016: 330)

The reductive and universalising tendencies of big data research have been made visible and challenged by critiques (see for example Lupton 2016; Blackman 2015). In a similar vein, the way in which numerical measurements reduce the multiplicity of relations of air into units of measurements has been brought into question (see for example Garnett 2017). However, my point here is not to say that big data research is simply at fault, nor to pit small data (qualitative methods) against big data research (quantitative methods). Rather, based on things of, for example, the research conducted by Tao et al., I am interested in thinking further the following questions: (1) what implications might the correlation between social media posts about air pollution and the scores of air quality have for receiving and conceiving the phenomenon of air pollution in the Chinese context? (2) If

correlation could be understood as a form of relation, then how might the embodied experiences of air pollution find expression in the numerical measurements of particulate matter in the air, and vice versa? While Tao et al. suggest that there is such a correlation, they do not explain how it is substantiated across seemingly unbridgeable realms. (3) What research methods can be used to approach these questions? And where to begin? The formulation of these questions follows feminist new materialist refusal to separate nature and culture, matter and language, human and the more-than-human. That is, rather than simply criticizing the constraints of forms of representation, be that quantitative or linguistic, imposed by the Anthropocene to inquire about such a correlation between the individual and the universal, the subjective and the objective, the embodied and the numerical is to open up the possibility for thinking in and through the irreducible relationality and sociality that confound the location of identity. Here? There? I? Me?

Tracing Smog: D ... (chasing smog), à ... (escaping smog), ... H (people of smog)

The question of "where", as Gunaratnam and Hamilton point out, is apt for feminist consideration of methods and methodologies. As they make clear, the method at its European root is all about terrain, emplacement and venturing forth. In the modern Western tradition Ulmer (1994, p. 30) reminds us "beginning with Plato and his Academy" "geometry was a morality, 'everything in its place, related to the doctrine of the route as a right way to proceed'. The word comes from the Greek *meta* (higher, beyond) and *hodos* (route); with "route" connoting a highly prescribed and gendered mode of travel and expedition. (Gunaratnam & Hamilton 2017: 115 emphasis in the original)

The conception of method as route with determined beginnings and endings is informed by colonial and anthropocentric imaginaries (see, for example, Tuhiwai 1999; Ahmed 2006; Da Silva 2015). On this account, agency, calculation, intention and action "is understood as contained within the (human) subject. According to



this "quest narrative" (Gunaratnam & Hamilton 2017: 116) (hu)Man maps, deciphers and extracts knowledge from the world, whose properties are always already known and performatively reproduced.

In many ways, the methods used to examine whether there is a correlation between social media posts about smog and the changing levels of air pollution can be said to be forms of method-as-route. For example, the properties of smog are already known and inform the researchers' choices in the process of data collection. In the study conducted by Wang et al. (2015) that examines whether there is a correlation between public perception of smog's impact on health and the changing levels of pollution, four keywords "pollution, air, breathe and cough" are selected, while messages that contain a list of 1282 health-related terms according to Chinese medical dictionary are filtered out. In other words, smog is already identified as a form of pollution, that is located in the air, and interacts with the body through breathing. Moreover, coughing is posited as the primary symptom developed from breathing polluted air.

One way of contesting and transforming such an overdetermination of smog (research object) and its relation to the research subject, is to attend to the material contingencies and multiplicities manifested in the liveliness of data (Lupton 2016) and in the embodied errors in the process of modelling and measuring air, which make visible the irreducible excess that cannot be contained by the unit of numerical measurements and linguistic representations (Garnett 2016). And yet, would such a replacement of the location of agency, either in the subject or in the object, abandon the political concerns of the who for the vibrant relationality of the what, or/and reinstall the exceptional status of humanness-as-whiteness now under the guise of the agential capacity of the more-than-human?

In view of this, I suggest that the question of "where", which informs, for example, the conception of the prior separation between the who and the what, and the configuration of method-as-route, need to be further supplemented by the question of "when". In other words, and as the following analysis makes explicit, a more radical reworking of the anthropocentric and colonial underpinnings of methods and methodologies necessitates reconsideration of the following aspects: (1) the

location of agency; (2) the coordinates that map the research practice, for example where the boundary is drawn between what is included in and excluded from the data; (3) the assumed continuities and discontinuities that undergird, for example, the notion of bounded entities that are severed from each other (discontinuities), as well as of the capacities of cognition and intention of the human subject (continuities). Karen Barad's following contemplation is instructive here,

The presumed radical disjuncture between continuity and discontinuity was gateway to Man's stewardship, giving him full knowability and control over nature. Calculus is the escape through which Man takes control over nature. Calculus is the escape hatch through which Man rises from his own finitude. Man's reward: a God's view of the universe, the universal viewpoint, the escape from perspective, with all the rights and privileges accorded therein. (2007: 233)

As Barad importantly points out, the separation and opposition between continuity and discontinuity is central to the fantasy of the disembodied vision that is the exceptional status of the human condition. Moreover, the idea that the world is composed of discontinuous entities that are readily knowable also informs the received notion of research as a process through which knowledge is abstracted and extracted from an existing phenomenon. Given this, the conjoining of the question of where and when certainly feels disorienting in research practice. If investigation of a research problem there does not have a marked starting point (nowandhere), and if what identifies me is always already and not yet implicated in, implicating, and spoken as what is other than and outside me, then is it at all possible to conduct research, which requires and foremost locations and demarcations that provide the condition of possibility of making intelligible? How? The reformulation of the methodological problem also entails reworking the research problem. That is, the question of how to sense smog on social media should now be changed to when and where does sensing smog begin and end? Seeing difficulty that such a question brings, as beginning and ending already suggest locations which are precisely what the "when" and the "where" complicate, I add more research problems: What is smog? And, what it is like to be/for smog?

[5].

The latter question takes inspiration from Wynter's (2001) theorisation of the sociogenic principle. Although a close reading of Wynter's sophisticated theory is beyond the scope of this article

[6].

, in what follows I briefly explain how and why. I find the notion of sociogenic principle instructive for the discussion at hand. The notion of sociogenic principle builds upon Frantz Fanon's theorisation of 'sociogeny' (1986 [1967]: 13), which challenges the biocentric notion of human development of the phylogenetic theory, and Freud's theorisation of ontogeny that centres on the individual. As Fanon asserts, 'the black man's alienation is not an individual question' (1986[1967]: but a social process, organised by the historical-racial schema. In Fanon's work, Wynter finds the critical purchase of the liminal perspective of being simultaneous inside and outside the Western white bourgeois subject and its negative other for rethinking the puzzle of consciousness. That is, 'how a subjective experience can possibly arise from the neural processes in the brain' (Chalmers, 1995: 80), as well as to why all this processing has to be 'accompanied by an experienced inner life' (Chalmers, 1996: vii). Why, in effect, is there the imperative of experience or the necessity of consciousness? (Wynter 2001: 31; emphasis in the original).

Two aspects of Wynter's analysis of the sociogenic principle in terms of consciousness are particularly important for the discussion at hand. First, contingency and historicity are installed at the centre of the dynamic interaction between the neurobiological process—the opioid system of feeling good and bad—and the culture-specific governing code. In so doing, it rethinks 'receptive encounters' as they have resulted in the ways in which racialised visual episteme performatively materialise bodies of colour. In many ways, this resonates with Butlerian performative approach that posits an anticipatory and preemptive temporality that produces an always already racialised and othered body prior to the 'specific' encounter. And yet, and this leads to the second aspect of the relevance of Wynter's thesis of consciousness to the discussion at hand, the emphasis on the necessity of both the neurobiological process and the subjective experiences, furthers Butlerian approach by way of a general sociality that is found in the interaction between the social and the neurobiological. For example, Wynter cites Fanon's following observations:

The black man who has lived in France for a length of time returns radically changed. To express it in genetic terms, his phenotype undergoes ~~positive~~ an absolute mutation. Even before he had gone away, one could tell from the almost aerial manner of his carriage that new forces had been set in motion (Fanon quoted in Wynter 2001: 36)

For Wynter, following Fanon, the changing subjective experiences activate the specific physicalistic correlates (2001: 37). In other words, the socio-cultural definition of the human maps meaning onto and mediates the operation of the biochemical and the neurological. Moreover, the process of socio-cultural mediation is fundamental and irreducible, insofar as it provides the condition of possibility for the sense of self, that is the consciousness of and as human. Importantly, Fanon's analysis of sociogeny not only provides the missing link to the puzzle of consciousness, that is how the subject experiences arise from the neural process of the brain, but also calls into question the self-evidence of consciousness as well as the biocentric configuration of the human. Nevertheless, such an account assumes prior separation between nature and culture. For example, as Wynter notes, the received otherness of certain bodies results in the changing sociogenesis which overrides (2001: 48) the neurobiological process. Interestingly, Wynter's arguments about the irreducible and simultaneous first-person experiences (subjective) and third-person accounts (objective) could be read as suggesting an internal split that complicates the interactive hybrid model that she proposes. It is here that I read Wynter's theorisation of consciousness together with Kirby's formulation of originary humanicity.

In *Quantum Anthropologies: Life at the Limits* (2011) Kirby considers the question of consciousness by engaging with Edmund Husserl's theorisation of ideal objects or representations of mathematical objects. What troubles Husserl is how geometrical abstraction that is derived from personal perceptions and inventions of the first geometer proves transmissible through time and space. Kirby cites Derrida's summary of Husserl's meditation:

How can the subjective egological evidence of sense become objective and intersubjective? How can it give rise to an ideal and true object, with all the characteristics that we know it to have: omnitemporal validity, universal normativity, intelligibility for everyone, uprootedness out of here and now factuality, and so forth? É [H]ow can subjectivity go outside of itself in order to encounter or constitute the object? (Derrida quoted in Kirby 2011: 29; emphasis in the original).

Insofar as the spatiotemporal coordinates of here and there, of individual consciousness and intersubjectivity, of natural and cultural, are considered separate, from the start, the question of the how of transmissibility would remain opaque. In view of this, Kirby suggests that the question of transmissibility needs to be rethought in terms of originary supplementarity more generally. On this account, the first geometer's invention is an instance that is already replete with the co-consciousness of human activity (Kirby 2011: 29; emphasis in the original). In other words, consciousness, as the marker of the exceptional status of the human condition, is non-locatable. Spatially, consciousness cannot be reduced to the property of the brain, located in the individual body; temporally, the essence of consciousness, that is typically associated with intention, activation and agency, cannot be contained in an isolated moment in time but is discontinuous with/in itself. For Kirby, this non-locatability is originary humanicity that is corporeal and material through and through.

Kirby's and Wynter's respective re-orientation of consciousness complicates and supplements each other. Whereas Kirby's emphasis on the spatiotemporal non-locatability reworks the implicit separation between nature and culture in Wynter's account, Wynter's analysis of the way in which the sense of self is materialised at racialised lines draws attention to the simultaneous processes of differentiation and of exclusion and negation of certain differences understood as excessive and/or less than. Importantly, and especially relevant to my engagement with the question of who and the what, both Kirby and Wynter approach the nature-culture problem not by simply replacing anthropocentrism with the agential capacity of matter and nature, but by engaging with relationality with/in/through/as subjectivity, consciousness, language and representation.

Reading Wynter's contemplation of "what it is like to be/for human?" through the notion of originary humanicity, I suggest that consciousness is in fact an enlarged scene of sociality, that is an internal split that constitutes the subject and the object with/in/through/as each other. On this account, the ontological, the neurobiological, the social and the subjective are not separate realms that interact with each other but are different expressions of the same phenomenon. In view of this, rather than quickly discrediting the question "what it is like to be/for smog?" for its ventriloquism and anthropomorphism, I follow Kirby's suggestion, to "as anthropomorphism, refute anthropomorphism, and entirely re-evaluate what we mean by 'anthropomorphism'" (2011: 20). In an attempt to sense of/as smog, the word p ... (smog) on Sina Weibo, in so doing locating and identifying its experiences.

## Tracing Smog

To make explicit, two aspects of tracing are involved here! The first aspect of tracing smog concerns when and where the word smog is used and what it means and it might have. The second aspect puts emphasis on the spatiality and temporality that the practice of tracing smog on social media entails. At glance, it seems that such a research design of tracing smog might produce predictable results. That is my earlier engagement with big data research on the correlation between public perceptions of air quality in China and the changing air quality scores makes clear the properties of smog is already predetermined and reproduced by the word and the research practices that set out to measure

and find its trace. Moreover, the textual-orientation that tracing smog on social media suggests seems incapable of analysing the material substantiation of smog alone answering the question of what it is like to be/for it. And yet, a set of words repeatedly show up in the posts listed by Sina Weibo that contain the word. For example, the entries listed below contain words such as (chasing smog), à ... (escaping smog), ... (inhaling smog; this word paraphrases meaning using drugs), ... H(people of smog)

[7].

1. p ... s o s ... o F p ... © Ü ... D ... D 6

If smog leaves, I also leave. I will see smog to the south. Gonna follow smog. (my translation)

1. K ?œ • . M p ... ç / û K r ä f B { ... a Û ç \ ' © \_ › ¶ \_  
¾ ' % z š ' G \_ H 1 ] J Æ Ð ? j M l ± ê + Æ œ \ D ... ! z

What? How dare you (some of the) smog come to the capital at this juncture! You disregard the current situation! What happens if you disappoint for signals? Those departments concerned should hunt down smog across provinces! (my translation)

1. # • ... X H # X p p ... p ' • t l ... © : ± ž Ô p ... 1 ; © ... n  
... M 8 1 · Š D à ... ' 6

#smog inhaling alien# I believe that the problem of smog can be solved. I went to the hospital. And the doctor said that it was because of smog. Back then, rich people all left to escape smog. (my translation)

1. & ' è ... R 1 ø W ... p ... ê j n ' Û ¾ 6 à ... > ñ ~ ê j u n ' ... •  
... V • r % ì é 6

Smog is no longer a shocking news. It is the new norm. The supply chain for escaping smog has already been established, but the path to prevent smog is still long and full of obstacles. (my translation)

1. #® É p ..#¾ · v • H , ) o . . • • ... H 6

#Shen Zhen Smog# breathe the same air as in and share the same fate of the capital. We are all socialist smog inhalers. (my translation)

1. p µ \_ È w ç æ 6 Ü › M 1 Ž Ĩ ` È ... . M \_ Æ 1 ` . / 6 p  
± “ H Û ... Á • { f ´ Û ... p ± “ H • ´ Û ... ) Á « \ " ... 6 ...  
ç b Ê ... Ê 1 đ ó ' \ ' y ø ; ... b f « ... « ... . q \ ... H 6 X p o j p  
' † \ Ò « P p ... . o ` Ó!

China is not covered in haze, as some news media has reported. One ~~had~~ still blue sky and white cloud. Some people choose to stay in the polluted areas, despite their desire for fresh air. Some people breathe fresh air but produce hazy smog. Smog is not scary, what is scary is the refusal to address the actual cause of the problem. Smog can be controlled. But the management of smog necessitates managing the producers of smog. I believe that we can ~~Ô~~defeat smog, return blue to us~~Õ~~! (my translation)

1. æ μ M Planet of the Apes j b f Ì Þ ± Planet of the hazer. b f ² ¢  
= ... V ¿ x > r = H ... V > 6 H ? B V ) p ... ± Û ... ó Ü ... H B ±  
ž . ... è ± “ œ 1 \ Ü ‹ H õ 1 Ÿ [ ³ \* 6

The U.S. made them Planet of the Apes. We can make a ~~kind~~ called Plant of the hazer, which could be translated as ~~Ô~~the arise of the smog plant~~Õ~~ or ~~Ô~~people of planet~~Õ~~. ~~Them~~ depicts a dystopic future in which the whole earth is covered by smog. All savage people of smog from the East have survived the smog~~stand~~ against the few survived normal westerners.

[8].

(my translation)

Whereas in English, smog is one word, in Chinese, the ~~word~~ contains two characters, both of which have meanings when used ~~alone~~ alone notes fog... stands for haze. When used alone, also means smog. In the above-quoted posts, is used to combine with another word to construct new meanings

[9].

While these posts clearly make visible forms of public perception of smog, the question remains as to how they might provide insights into smog~~Õ~~s experiences What is it like to be/for smog? To answer this question, I ~~will~~ clarify what I mean by trace.

Trace, when used as a noun, is typically understood as a mark or sign of the form existence of an entity. A trace makes visible where the entity departs, moves toward and the route it takes. Such an account is informed by the logic of presence~~Ð~~self-sameness~~Ð~~that is conceived of as the essence of the entity and of the marks it leaves



Along this line of thinking, tracing smog on Sina Weibo means pinning down when and where the word first appears on Sina Weibo (see my earlier discussion about how the word smog becomes a buzzword on Chinese social media), and establishing the correlation between the frequency of its appearances and the changing level of air pollution in China (as suggested by for example Tao et al.'s research). These findings are in many ways interesting and important. Nevertheless they begin and end with the assumption that smog is an entity that can be simply present or absent and that its properties are known, prior to the tracing.

For example, despite their recurrent appearance on Sina Weibo, words such as (chasing smog), ... (escaping smog), ... (inhaling smog), ... (people of smog) are not taken into consideration in the aforementioned big data research. This is because they do not fit the prescriptive account of smog, whose trace can be found in and identified as the changing colours of the sky [10].

and respiratory symptoms such as cough. This form of tracing is a good example method-as-route that Gunaratnam and Hamilton criticise, which begins with and reproduces the predetermined definition of what smog is.

In contrast to this understanding of trace, Derrida suggests the trace is not a footprint that can be simply found. Rather, it is non-present. As Derrida writes,

The trace is not only the disappearance of origin within the discourse that we sustain and according to the path that we follow it means that the origin did not even disappear, that it was never constituted except reciprocally by a non-origin, the trace, which thus becomes the origin of the origin (1997 [1976]: 61)

Trace (often used interchangeably with other terms such as supplementarity, iteration and writing) is a key term in Derrida's critique of phallogocentrism. It calls into question the logic of presence, or the metaphysical individualism, found in the conception of substance/essence/existence [ousia], temporal presence as [stigma] of the now or of the moment [nun], the self-presence of the cogito, consciousness, subjectivity, the co-presence of the other and of the self, intersubjectivity as the intentional phenomenon of the ego, and so forth (1997

[1976]: 12). To put it simply, for Derrida, trace is a radical relationality, which conditions and displaces any location or identity, including the identity of here, there, I, they. Importantly, as Derrida further clarifies, such a structure of non-presence also means that trace must not be understood as something that comes before and outside what is marked and identified as meaningful.

[11].

But what does it mean, in practice, to use trace as a method? And how, in this situation at hand, might it assist reconsidering not only how we know smog, when and where but also, what it is like to be/for smog? It is important to clarify that trace is not a method, if method is understood as a procedure or technique of analysis that is confined within certain disciplinary boundaries and applied to decipher a pre-existing object. Kirby uses Derrida's term *point-de-méthode* (point/lack of method) (Derrida in Kirby 2011: 5; emphasis in the original) to "differentiate deconstruction from what is typically understood as a methodology. And yet, taking inspiration from Kirby's insistence on refusing to refuse humanicity, it is more provocative to utilise and reconfigure the term method. Insofar as the non-presence of trace undoes the linearity and self-presence of a path, the suggestion that trace is a method also reworks the terms of reference of method.

Having said this, I now turn to the second question that concerns the implications of tracing smog. For Wynter, the third-person description (in this case, what smog is) necessitates the first-person experience (what it is like to experience as smog), and vice versa. This radical implicatedness of conception and perception, and of ontology and epistemology, is also echoed in Derrida's *constitution* of trace. To put it differently, the non-presence that trace means that the spatio-temporal coordinates that define continuity and discontinuity that undergird the received notion of consciousness, subjective experiences, and bounded entities, need to be reworked. The trace is dis/continuous. Neither continuity nor discontinuity that is also the radical sociality found in Wynter's question "what it is like to be/for human" and in Kirby's theorisation of originary humanicity where intention and agency are not simply distributed but non-locatable. In other words, the who and the what in

the process of perception and conception are entirely confounded so that each is simultaneously perceiving and perceived by itself and the other, all the while as they construct and deconstruct their identity.

In a similar vein as Wynter understands the common reality of humanness-as-whiteness, this is also the sociality that enables and limits Fanon's conception and perception of blackness, the discussions about chasing, escaping, inhaling smog and the people of smog quoted earlier are not simply the anthropomorphic descriptions of one's reaction to smog and its effects, but also make visible the common reality of the normal, natural and pure environment managed by (hu)Man that informs the perception and conception of smog. For example, smog is depicted variously as a companion of sorts, as a fugitive that causes trouble for China because the problem of air pollution might disappoint 'the foreigners', as the invader who has now seized control of China and established new norms, as a new numbing, addictive and poisonous element of socialism, and as the essence of the transnational people of smog, whose nose and mouth have morphed into theirs.

These representations of what smog is are only made possible by accounts of what is like to be/for smog, which is made intelligible by the epistemology that is defined by the exceptional status of the human condition. However, to experience smog is not possible if smog and the human subject occupy two ontologically different and thus separate realms, for what constitutes the bridge that links the former to the latter. The non-presence of trace means that not only the human and the more-than-human are inseparable, because of their irreducible inter-dependence, but they are also implicated in and confounded by a general scene of writing (Derrida), a common reality/sociality (Wynter) and an originary humanicity (Kirby). It follows then that the human subject conceives and perceives as smog and in so doing identifies and locates itself. Likewise, the smog experiences itself as human through the anthropomorphic and racialised epistemology in measuring and tracking itself. All in the same breath! This simultaneous movement of inward and outward, of occupying more than one place at the same time, even all the while as these places are opened up, broken apart and displaced, is symptomatic of the dis/continuity of trace, of writing, of sociality and of originary humanicity.

However, this is not simply to affirm Sullivan's assertion that the more-than-human is beyond our perception and is put under erasure because the exceptional status of the human condition, as the common reality, conditions and limits intelligibility; nor is it suggesting that this turn to the general writing means that questions of specificity and difference of the all-too-human are elided as Guanratnam and Hamilton caution. This is because the distortional and disorienting dis/continuous non-presence that trace necessarily confounds the identity and property of humanness. For example, Sullivan's critique is based on the notion that we are in a perspective, rather than simply having one, which means that it is impossible to abandon the very condition of possibility of sensing and of making sense of the world. And yet, such an account is underpinned by the assumption that this perspective that we are in is essentially human. It is only in this sense that it is not possible that the more-than-human might also situate in this epistemic. Moreover, in terms of the question of specificity and difference, the mutual structuring and destabilising movement of the epistemic and the ontological that the trace enables, also entails reworking the opposition between universality and specificity.

Recall that the various identifications of smog in the posts quoted earlier make visible the different and situated relationalities that are enabled by and contest the self-evidence of smog. For example, post (3) and (6) show that the economic inequality that informs different relations to smog – some stay close to it, others escape it all the while as they profit from its production. Post (2) and (7) speak of the ways in which air pollution intersects with that racialisation of China and Chinese bodies. Post (2) mocks the Chinese government's desire for the recognition of the West, so much so that they would quickly 'clean' up air when China is hosting important international events, such as the APEC meeting. Chinese netizens use the word 'APEC blue' to describe the ways in which Chinese government tries to present a good image to the West rather than actually putting to solve the problem of air pollution. Post (7) makes visible the imaginaries of air pollution confirm and reproduce the Chinese bodies as the other to the 'normal' western civilised bodies. Posts (4) and (5) criticise the ways in which smog is the by-product of Chinese political and economic system. Whereas post (5) suggests that

all Chinese bodies are now inhaling smog, which is numbing, addictive and poisonous. The debilitated bodies are incapable to contest the political and economic operations that produce smog in the first place, post (4) shows that smog has been quickly capitalised upon as there are many rich people who are eager to escape it which perpetuates rather than solving the problem of air pollution.

## Conclusion

In this article, I begin with a brief reading of feminist critiques of new materialist oriented research methods and methodologies. The separation between the who and the what is identified as central to this dispute. I then proceed to the ~~space~~ <sup>scope</sup> of researching the phenomenon of smog on Chinese social media. Upon close reading of big data studies that reveal the correlation between the public perception and the changing levels of pollution measured by air quality scores, I suggest that rather than pitting big data against small data research, it is more interesting to approach the problem of air pollution by thinking further, for example, about ~~the~~ <sup>how</sup> of the correlation between the supposedly objective measurement of smog and the individual subjective perception of it. I then take up with Wynter's conception of sociogenic principle, Kirby's formulation of originary humanicity and Derrida's theorisation of trace to suggest using trace as a method and a methodology for examining smog on Chinese social media.

What I am trying to get at here in many ways resonates with the need to cultivate anthropomorphism that Jane Bennett (2010) advocates and to see from the non-human other's perspective that Myra Hird (2009) suggests. To make explicit, for Bennett, anthropomorphism in fact reveals similarities, conceived of as the vitality life forces, across the supposedly distinct categories, and in so doing calls into question the separation between the human and the more-than-human. For Hird, thinking from the more-than-human perspective can bring vehement challenges to the anthropocentric configurations of life, found in, for example, the ~~idea~~ <sup>division</sup> of sex. As Hird writes, "while sex produces genetically new individuals, sex does not need to (nor does it typically for most organisms) produce an increase ~~total~~ <sup>total</sup> number of individuals" (2009: 96; emphasis in the original). However, there is a

twist. To use trace as a method and methodology means taking seriously the dis/continuity that must necessarily confound, even as it reproduces, humanness-whiteness that is often implicitly invested in. For example, it seems that both Hird's advice to see from the bacteria's perspective and Sullivan's critique of it concern a prior, a fixed essence of humanness. It is only in this case that bacteria's perspective is radically other in the former account, and is made impossible in the latter. My rethinking of Wynter's conception of the question what it is like to be/for human/smog via trace and originary humanicity is inspired by and hopes to contribute to feminist aspirations to produce knowledge differently. The dis/continuous non-presence of the trace makes possible the correlation between public perception of smog and the changing patterns and levels of air pollution. Such a trace speaks (of) the self-tracking of sensing and making intelligible a practice of an originary humanicity. It follows then that rather than simply rejecting anthropomorphism, it is more productive to think carefully in, against, and through it, for how could it be otherwise?

## Notes

[1] For an excellent examination of the ways algorithms performatively produce racialised bodies as threatening and fearful, see Katherine Mckittrick's talk "On Algorithms and Curiosities" at the 2017 Feminist Theory Workshop,

<https://www.youtube.com/watch?v=ggB3ynMjB34>

(last accessed 15 July 2018).

[2] For example, the data released by U.S. Embassy have been censored on Chinese social media and also mobile apps. In 2017, Chinese meteorological administration banned the report of the heavy pollution and replaced the term "heavy pollution" (smog) with "unusually bad weather events" (indescribable weather events),

<http://news.ltn.com.tw/news/world/breakingnews/1956866>

(last accessed 10 August 2018).

[3] As Tao et al. explain, "Chinese" is different from western languages in that there are no spaces between words in a sentence. Most commonly used Chinese words are composed of two or more characters. The analysis is complicated in social media by

the frequent use of neologisms in online discourse. The approach adopted here is to utilise n-grams, representing consecutive Chinese characters in a sentence. Some of those sequences of characters form meaningful words, but most of them do not (Qin 2016: 3).

[4] MD5 is an algorithm that is widely used for data reduction. It produces a 128-bit hash, which is essentially a digital footprint: a very large number uniquely identifies the content of a digital file. Two files with a different name but the exact same contents will produce the same hash (Guizani 2006: 697).

[5] According to Denise Ferreira da Silva, 'I think it should begin with asking different questions, methodological rather than ontological ones: instead of the question of who and what we are, we need to go deeper into the investigation of how we come up with answers to the questions' (2015: 104). While I agree with Da Silva that methodological questions that ask how we come up with certain questions are important, I have reservation towards the separation of the methodological and the ontological questions. The idea that Da Silva, that is the question of being could be rendered simply absent, is to concede to its supposed essence, albeit in the form of negation.

[6] For example, although Linda Wynter's conception of subjective experience in nature-culture terms is exciting and provocative, it seems to me that her theorisation of the sociogenic principle posits and is informed by the a priori separation (although bridgeable) between the natural and the social, which is perceived as more complex and more advanced than the former.

[7] The omission of the information of the microblog user, for example, their user name, is out of ethical concerns.

[8] See:

<https://hk.news.appledaily.com/china/realtime/article/20170105/56134282>, (last accessed 3 June 2019).

(last accessed 10 August 2018).

[9] Most of standard Chinese words contain two consecutive words.

[10] In Tao et al.'s (2016) study, the list of words that describe the color of the sky used in the data analysis include, 'dust haze', 'haze', 'misty', 'dusky', 'air pollution', 'degree of pollution', 'very blue', 'cloudy', and 'sunny'.

[11] I want to point out that such an account differentiates from certain strands of scholarly work with new materialist orientations that posits a vital force, an excess that comes before and outside the moment of representation. In this line of work, the force, understood as excess, and radical alterity, presents as an entity that sorts that has transformative potential. As Derrida writes, 'there is never any thing called power or force, but only differences of power and of force, and that these differences are as qualitative as they are quantitative. In short, it seems to me that one must start, as Nietzsche doubtless did, from the in order to accede to force and not vice versa' (1992: 149).

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